

**WHAT IS CLAIMED IS:**

- 1 1. A computer implemented method for remotely configuring a  
2 Virtual Private Network (VPN) between a client-side system and a server-side  
3 system, comprising:  
4 receiving data indicative of a selected server-side system and a  
5 selected client-side system between which a VPN is to be established;  
6 automatically determining security settings for said client-side  
7 system based at least partially on said data; and  
8 automatically transmitting VPN configuration details to said  
9 client-side system, where said VPN configuration details include said  
10 security settings,  
11 such that in use said client-side system is automatically configured with  
12 said VPN configuration details to establish a secure VPN tunnel between said  
13 client-side system and said server-side system.
- 1 2. The computer implemented method of claim 1, wherein said receiving  
2 comprises obtaining said data indicative of a selected server in said server-  
3 side system and a selected user of said client-side system from a system  
4 administrator, via an electronic network.
- 1 3. The computer implemented method of claim 1, wherein said  
2 determining comprises creating a public and private key.
- 1 4. The computer implemented method of claim 1, wherein said  
2 determining comprises establishing a Digital Certificate.
- 1 5. The computer implemented method of claim 1, further comprising:  
2 automatically ascertaining further security settings for said  
3 server-side system;

4 automatically transmitting VPN configuration details to a  
5 concentrator within said server-side system, where said VPN  
6 configuration details include said further security settings.

1 6. The computer implemented method of claim 1, further comprising:  
2 automatically ascertaining further security settings for said  
3 server-side system; and  
4 automatically transmitting VPN configuration details to a firewall  
5 within said server-side system, where said VPN configuration details  
6 include said further security settings.

1 7. The computer implemented method of claim 1, wherein said  
2 transmitting comprises communicating said VPN configuration details to a  
3 modem within said client-side system.

1 8. The computer implemented method of claim 1, wherein said  
2 transmitting comprises communicating said VPN configuration details to a  
3 firewall on a modem within said client-side system.

1 9. The computer implemented method of claim 1, further comprising the  
2 step, after said determining step, of: storing said data and said security  
3 settings.

1 10. The computer implemented method of claim 1, further comprising the  
2 steps, after said transmitting step, of:  
3 receiving a password from said client-side system; and  
4 authenticating said password.

1 11. The computer implemented method of claim 1, further comprising:  
2 establishing a Virtual Private Network tunnel between said  
3 client-side system and said server-side system; and  
4 verifying that said tunnel is operational.

1 12. The computer implemented method of claim 1, further comprising  
2 configuring a login page on a modem within said client-side system.

1 13. A computer program product for use in conjunction with a computer  
2 system for remotely configuring a Virtual Private Network (VPN) between a  
3 client-side system and a server-side system, the computer program product  
4 comprising a computer readable storage and a computer program stored  
5 therein, the computer program comprising:

6 instructions for receiving data indicative of a selected server-  
7 side system and a selected client-side system between which a VPN is  
8 to be established;

9 instructions for automatically determining security settings for  
10 said client-side system based at least partially on said data; and

11 instructions for automatically transmitting VPN configuration  
12 details to said client-side system, where said VPN configuration details  
13 include said security settings.

1 14. The computer program product of claim 13, wherein said instructions  
2 for receiving further comprise instructions for obtaining said data indicative of  
3 a selected server in said server-side system and a selected user of said  
4 client-side system from a system administrator, via an electronic network.

1 15. The computer program product of claim 13, wherein said instructions  
2 for determining further comprise instructions for creating a public and private  
3 key.

1 16. The computer program product of claim 13, wherein said instructions  
2 for determining further comprise instructions for establishing a Digital  
3 Certificate.

1 17. The computer program product of claim 13, wherein said computer  
2 program further comprises:

3 instructions for automatically ascertaining further security  
4 settings for said server-side system; and  
5 instructions for automatically transmitting VPN configuration  
6 details to a concentrator within said server-side system, where said  
7 VPN configuration details include said further security settings.

1 18. A computer implemented method for remotely configuring a  
2 Virtual Private Network (VPN) between a client-side system and a server-side  
3 system, comprising:

4 receiving at a modem within said client-side system, VPN  
5 configuration details from a service provider system, where said VPN  
6 configuration details include security settings for establishing a VPN  
7 with a remote server-side system; and  
8 automatically configuring said modem, with said VPN  
9 configuration details,  
10 such that in use a secure VPN tunnel can be established between said  
11 client-side system and said server-side system.

1 19. The computer implemented method of claim 18, wherein said  
2 configuring further comprises setting-up a firewall on said modem with said  
3 security settings.

1 20. The computer implemented method of claim 18, further comprising:  
2 receiving a password from said client-side system; and  
3 authenticating said password.

1 21. The computer implemented method of claim 20, wherein said  
2 authenticating comprises:  
3 sending said password to an authentication server within said  
4 server-side system ;

5 receiving authentication from said authentication server.

1 22. A remotely configurable Virtual Private Network (VPN) comprising:

2 a client-side network comprising:

3 a modem that communicates with the Internet; and

4 at least one client computer electrically coupled to said  
5 modem;

6 a server-side network comprising:

7 a VPN concentrator that communicates with the Internet;  
8 and

9 at least one server electrically coupled to said VPN  
10 concentrator; and

11 a service provider network comprising:

12 a security generator for automatically determining  
13 security settings used to secure VPN communication between  
14 said client computer and said server;

15 a VPN synchronizer for automatically configuring said  
16 modem with said security settings; and

17 a modem synchronizer for automatically configuring said  
18 modem with said security settings.

1 23. The remotely configurable Virtual Private Network (VPN) of claim 22,  
2 wherein said modem is a DSL (Digital Subscriber Line) modem.

1 24. The remotely configurable Virtual Private Network (VPN) of claim 18,  
2 wherein said server-side network further comprises:

3 a router configured to electrically couple to the Internet;

4 a firewall electrically coupled to said router;

5 an authentication server for authenticating a user of said client  
6 computer;

7 a file server;

8 a proxy server; and

9 a DNS (Domain Name System) server.

1 25. The remotely configurable Virtual Private Network (VPN) of claim 22,  
2 wherein said server-side network further comprises an authentication server  
3 for authenticating a user of said client computer.

1 26. The remotely configurable Virtual Private Network (VPN) of claim 22,  
2 wherein said service provider network further comprises:  
3 a VPN provider;  
4 a DNS (Domain Name System) server; and  
5 an HTTP server.

1 27. The remotely configurable Virtual Private Network (VPN) of claim 22,  
2 wherein said security generator is a PKI (Public Key Infrastructure)  
3 Synchronizer.